3Com Megahertz 10 Mbps LAN PC Card User Guide

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Part No. 09-1457-000
October 1998

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1 INSTALLING THE LAN PC CARDS

The 3Com Megahertz 10 Mbps LAN PC Cards (models 3CCE589EC, 3CCE589ET, 3CXE589EC, and 3CXE589ET) connect your notebook to an Ethernet network.

The PC Card models are the same except for the connectors.

Figure 1 3Com Megahertz 10 Mbps LAN PC Cards

These LAN PC Cards automatically operate at 10 Mbps when connected to an Ethernet hub.

This chapter describes how to install a LAN PC Card in your notebook and connect it to the network.

After you install the PC Card, follow the instructions in Chapter 2 to install the driver so you can login to the network.

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Before You Begin

Make sure that you have an available PC Card slot in your notebook and these items:

- 3Com Megahertz 10 Mbps LAN PC Card
- Cable that shipped with your PC Card
- *3Com Megahertz 10 Mbps LAN PC Card User Guide*
- *2 LAN Installation Disks*

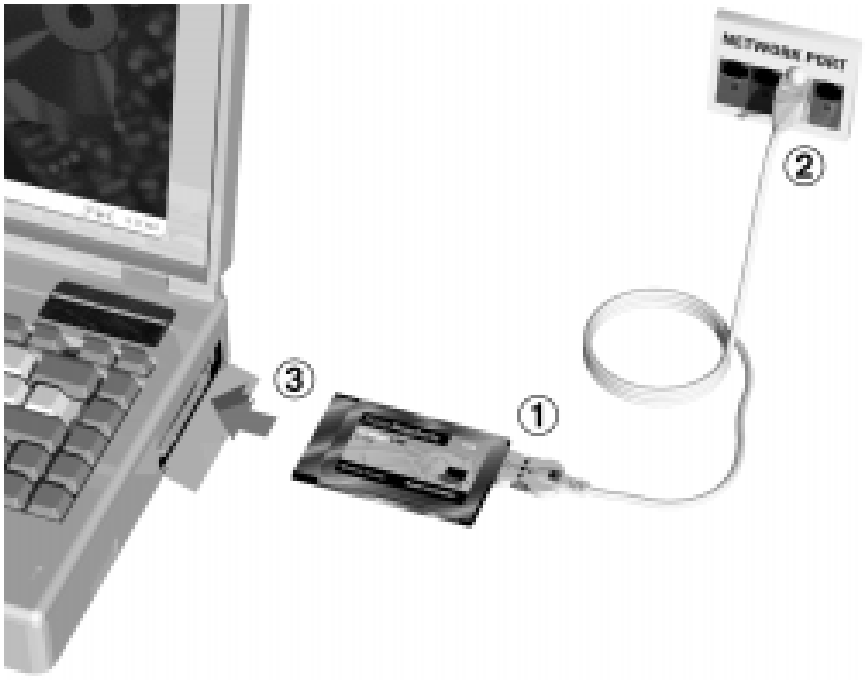
If any of these items are missing from the LAN PC Card package, contact your PC Card supplier.

Connecting the 3CCE589ET LAN PC Card

1 **Remove all PC Cards from your notebook and turn it on.**

2 **Connect the PC Card cable to the PC Card ①.**

Figure 2 Connecting the 3CCE589ET PC Card



3 **Connect the RJ-45 connector to the network port ②.**

4 **Insert the PC Card ③ into the PC Card slot and slide it all the way in.**

CAUTION: *Do not force the PC Card into the slot or you may bend the pins inside the slot.*

You may see Windows prompts for driver installation.Go to Chapter 2 to install the network driver.

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Connecting the 3CCE589EC PC Card

1 **Remove PC Cards from your notebook and turn it on.**

2 **If you are using the RJ-45 connector, connect the PC Card COMBO cable to the 3CCE589EC PC Card.**

a Connect one RJ-45 connector on the network cable to the PC Card COMBO cable.

b Insert the other RJ-45 connector into the network port.

c Insert the PC Card into the PC Card slot and slide it all the way in.

You may see prompts for driver installation.

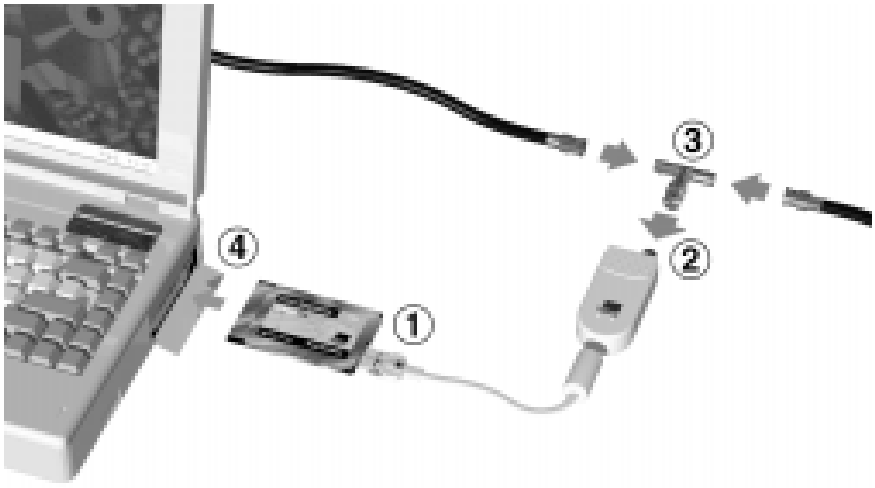
d Go to Chapter 2 to install the network driver that allows you to login to the network.

3 **If you are using the BNC T-connector, connect the PC Card COMBO cable ① to the 3CCE589EC PC Card.**

a Connect the BNC T-connector to the PC Card COMBO cable ②.

You must supply your own BNC T-connector.

Figure 3 Connecting the 3CCE589EC PC Card



b Connect the BNC T-connector to the Ethernet cable ③.

c Insert the PC Card into the PC Card slot ④ and slide it all the way in.

CAUTION: *Do not force the PC Card into the slot or you may bend the pins inside the slot.*

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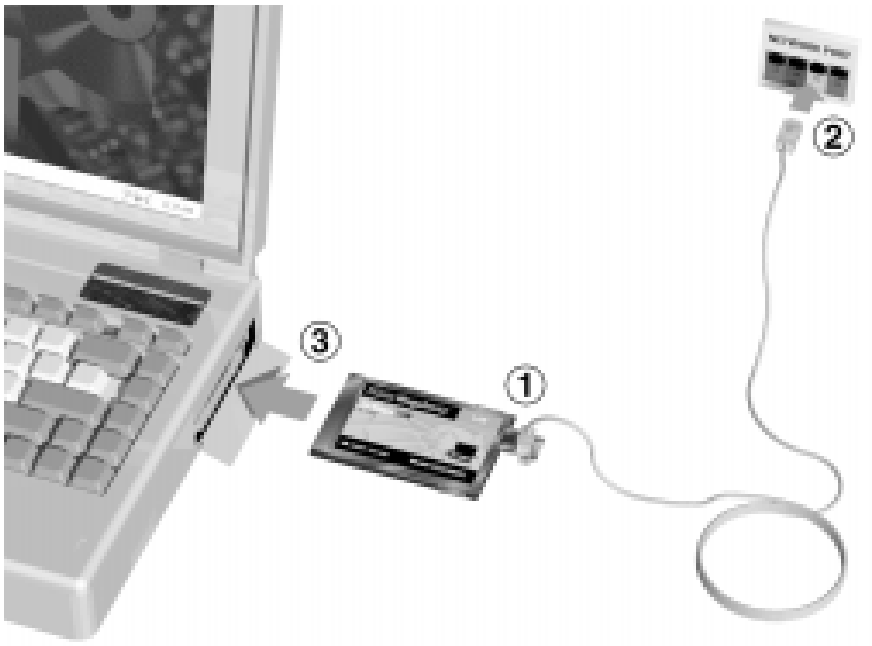
You may see prompts for driver installation. Go to Chapter 2 to install the network driver that allows you to login to the network.

Connecting the 3CXE589ET PC Card

1 **Remove all PC Cards from your notebook and turn it on.**

2 **Insert one RJ-45 connector on the network cable ① into the 3CXE589ET PC Card XJACK® connector.**

Figure 4 Connecting the 3CXE589ET PC Card



3 **Insert the other RJ-45 connector into the network port ②.**

4 **Insert the PC Card into the PC Card slot ③ and slide it all the way in.**

CAUTION: *Do not force the PC Card into the slot or you may bend the pins inside the slot.*

You may see Windows prompts for driver installation.

Go to Chapter 2 to install the network driver that allows you to login to the network.

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Connecting the 3CXE589EC PC Card

1 **Remove all PC Cards from your notebook and turn it on.**

2 **If you are using the XJACK RJ-45 connector, connect one RJ-45 connector on the network cable to the 3CXE589EC PC Card XJACK connector ①, as shown in Figure 4.**

a Insert the other RJ-45 connector into the network port ②.

b Insert the PC Card into the PC Card slot ③ and slide it all the way in.

You may see Windows prompts for driver installation.

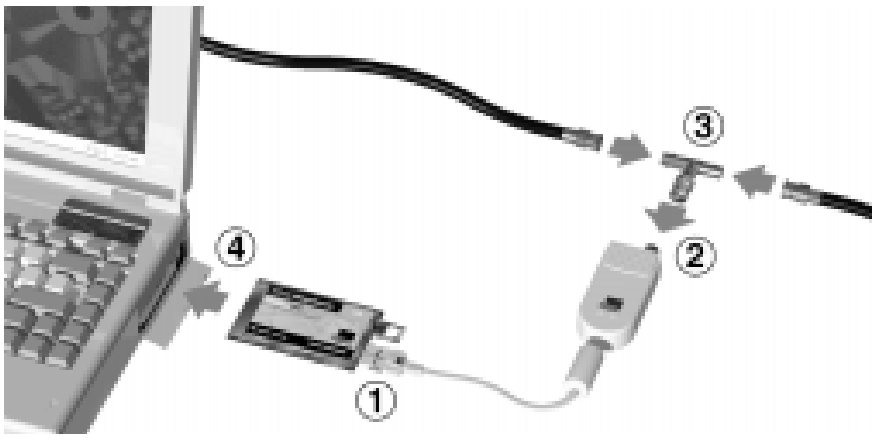
c Go to Chapter 2 to install the network driver that allows you to login to the network.

3 **If you are using the BNC T-connector, connect the PC Card COMBO cable ① to the 3CXE589EC PC Card.**

a Connect the BNC T-connector to the PC Card COMBO cable ②.

You must supply your own BNC T-connector.

Figure 5 Connecting the 3CXE589EC PC Card



b Connect the BNC T-connector to the Ethernet cable ③.

c Insert the PC Card into the PC Card slot ④ and slide it all the way in.

You may see Windows prompts for driver installation.

Go to Chapter 2 to install the network driver that allows you to login to the network.

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Detaching the PC Card Cable and PC Card COMBO Cable

To detach the PC Card cable and PC Card COMBO cable from the PC Card, squeeze the sides of the connector. The cable detaches from the PC Card easily.

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2 INSTALLING THE NETWORK DRIVER

This chapter describes how to install the 3Com network driver for Windows 98, Windows 95,Windows NT, Windows for Workgroups, and DOS.

See Table 1 on the last page of this chapter for information about Banyan Vines, Microsoft LAN Manager, IBM LAN Server (DOS and OS/2), Artisoft LANtastic, DEC PATHWORKS, NetWare and OS/2, Windows for Workgroups, DOS, and Windows CE 2.0.

The latest network drivers are available in the Support area on 3Com's World Wide Web site:

http://www.3Com.com/

Before You Install the Network Driver

Make sure that the PC Card is installed in your notebook and connected to the network before you install any network driver.

Which Driver Installation Instructions Should You Use?

Ask your MIS department which network driver instructions you should use. Instructions are provided in this chapter for each of the following environments:

- Windows 98
- Windows 95 version 4.00.950B (OSR 2)
- Windows 95 version 4.00.950 or 4.00.950A
- Windows NT version 4.0
- Windows NT version 3.51
- Windows for Workgroups
- AutoLink™ for Windows 3.1, Windows for Workgroups, and DOS

Go to the section for your notebook environment to install the driver.

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Windows 98 and Windows 95

This section describes how to install the network driver when your notebook is running Windows 98 or Windows 95. You need the Windows 98 or 95 system installation files (either on hard disk, floppy diskettes, or CD) to complete the installation.

3Com includes the NDIS 5, NDIS 4, and the NDIS 3 network drivers on *LAN Installation Disk 1*. The 3Com software automatically detects which Windows version is installed on your notebook and loads the correct driver.

The NDIS 5 driver works with Windows 98.

The NDIS 4 driver works with Windows 95 OSR 2 (version 4.00.950B) but not with earlier versions of Windows 95. You must use the latest NDIS.VXD (8/24/96 or later) to use the NDIS 4 driver with Windows 95 OSR 2.

The NDIS 3 driver works with Windows 95 and Windows 95 OSR 2.

The following instructions assume that you have not installed any other network adapter in the machine.

If you have been using a network connection on your computer, some of the following instructions may not apply or may produce different results. Refer to your MIS department or system manager for instructions.

Windows 98

"Windows 98" appears on the boot up screen when WIndows 98 is installed on your PC.

1 **Make sure the LAN PC Card is installed and connected to the network as described in Chapter 1.**

2 **Turn on your notebook and start Windows 98.**

Windows 98 automatically detects the LAN PC Card. It opens a *New Hardware Found* window and starts collecting information for a driver information database.

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3 **When Windows 98 is ready to configure the new hardware, it opens the *Add New Hardware Wizard* window.**

The window states that Windows will search for new drivers for 3Com Megahertz 589E.

4 **Click *Next*.**

A new window appears asking what you want Windows to do.

5 **Select *Search for the best driver for your device* and click *Next*.**

6 **Select *Floppy disk drives,* insert *LAN Installation Disk 1*, and click *Next*.**

After the hardware wizard finds the installation files on the diskette, it displays *3Com Megahertz LAN PC Card (589E) (Ethernet)*.

7 **Click *Next* to copy the required files and build a driver information database.**

8 **If prompted, insert the Windows 98 CD.**

The Windows 98 files may be located on the hard drive in the folder C:\WINDOWS\OPTIONS\CABS.

9 **Click *OK* to copy the files required.**

Please wait while the system checks your current network configuration. The required time depends on your settings for network software components.

A windows appears stating that Windows has finished installing the software that your new hardware device requires.

10 **Click *Finish*.**

11 **Remove *LAN Installation Disk 1* from the floppy drive and reboot the notebook.**

Driver installation is complete.

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Windows 95

This section includes different installation procedures for Windows 95 version A and Windows 95 version B (also called OSR 2). To find out which version you are running:

1 **In the Windows Control Panel, double-click *System* to display the System Properties dialog box.**

2 **Click the *General Tab* to display the Windows 95 version information.**

If your Windows 95 version is 4.00.950B (OSR 2), you are using Windows 95 OSR 2.

If your Windows 95 version is 4.00.950 or 4.00.950A, you are using Windows 95.

Windows 95 OSR 2

1 **Make sure the LAN PC Card is installed and connected to the network as described in Chapter 1.**

2 **Turn on your computer.**

The Update Device Driver wizard detects the card and displays *3Com Megahertz 589E*.

3 **Insert *LAN Installation Disk 1* and click *OK*.**

The following message appears: "Windows found the following updated driver for this device: 3Com Megahertz LAN PC Card (589E) (Ethernet)".

4 **Click *Finish* to accept the driver.**

Windows displays the message: "The file net589a.inf on 3Com Megahertz LAN PC Card Installation Disk could not be found. The default directory was C:Windows\Options\Cabs."

5 **Enter a: and click *OK*.**

If the software prompts for computer name and workgroup name, enter the information as supplied by your MIS department and click *OK*.

6 **If prompted, insert the Windows 95 CD.**

The Windows 95 files may be located on the hard drive in the folder C:\windows\options\cabs.

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7 **Click *OK* to copy the required files.**

The Update Device Driver wizard may prompt for Windows 95 files, and report that the drivers could not be found. If this happens, enter A:\ as the location of the files so the wizard can read them from *LAN Installation Disk 1*.

When installation is complete, Windows 95 asks if you want to restart your computer.

8 **Remove *LAN Installation Disk 1* and click *Yes*.**

When the software restarts, it prompts for your user name and password.

9 **Enter your user name and password as supplied by your MIS department.**

10 **Click *OK*.**

11 **When prompted to verify your password, retype it and click *OK*.**

The Network Neighborhood icon appears on your desktop.

12 **Double-click the *Network Neighborhood* icon to access the network.**

Confirming Installation

1 **Double-click the *My Computer* icon.**

2 **Double-click the *Control Panel* icon.**

3 **Double-click the *System* icon.**

The System Properties box appears, detailing your system setup.

4 **Click the *Device Manager* tab.**

A list of devices appears, arranged by type.

5 **Double-click *Network Adapters*.**

The PC Card name appears confirming successful installation:

`3Com Megahertz LAN PC Card (589E) (Ethernet)`

6 **Double-click *3Com Megahertz LAN PC Card* to display a description of LAN PC Card and its current status.**

The dialog box confirms that the PC Card is working properly.

7 **Click the *Cancel* button to leave each dialog box and return to the Control Panel.**

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Windows 95 Version 4.00.950A

This section describes how to install the NDIS network driver when your notebook is running Windows 95 4.00.950A.

1 **Make sure the PC Card is installed and connected to the network, as described in Chapter 1.**

The New Hardware Found window appears and states that it has detected the 3Com Megahertz LAN PC Card (589E) (Ethernet).

2 **Insert *LAN Installation Disk 1*.**

3 **Select *Driver from Disk provided by manufacturer* and click *OK*.**

The Install from Disk window appears.

4 **Click *OK* to copy the manufacturers files from a:\.**

If Windows 95 files are requested, enter the path to the files (typically C:\windows\options\cabs) and click *OK*.

5 **Remove the LAN Installation Disk 1 and restart the PC to log into the network.**

Windows NT

Before you begin, obtain *LAN Installation Disk 1* shipped with your LAN PC Card and the Windows NT installation files (on hard disk or CD).

If Windows NT networking is not installed, you also need the following information from your MIS department.

- Are you on a local area network or are you using a modem?
- Protocol used in the Microsoft Windows network (NWLink IPX/SPX compatible transport, TCP/IP protocol, NetBEUI protocol)
- Name of the NT Server domain or workgroup you belong to
- IP address if you are not using DHCP

The 3Com software automatically detects which version of Windows NT your are running and installs the correct driver.

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Windows NT 4.0 Installation without Networking Installed

If you have networking installed, go to the next section to install the driver.

1. **In the Control Panel, double-click *Network*.**

   The system prompts:"Windows NT Networking is not installed. Do you want to install it now?"

2. **Click *Yes*.**

   This opens the Windows NT network Setup Wizard.

3. **Check *Wired to the network* and click *Next*.**

   Windows prompts "To have setup start searching for a network adapter".

4. **Click *Select from List*.**

5. **Click *Have Disk*.**

6. **Insert *LAN Installation Disk 1* into the floppy drive and click *OK*.**

7. **When the Select OEM Option window opens, select 3Com Megahertz LAN PC Card (Ethernet) and click *OK*.**

   The Network Adapters list shows the 3Com Megahertz LAN PC Card with a check mark on it.

8. **Click *Next* to continue.**

9. **In the Network Protocols list, place a check mark next to each network protocol that Windows NT will use and click *Next*.**

   Most Microsoft NT networks use the NWLink IPX/SPX Compatible Transport. If you are not sure, ask your system administrator or MIS department.

10. **In the Network Services window, place a check mark in the box next to each desired service.**

11. **Click *Next* to continue.**

12. **Click *Next* to install the selected components.**

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13 **When prompted, enter the path to the Windows NT installation files (for example, D:\I386 on the NT CD) and click *Continue*.**

On some notebooks, you may be prompted for NT files again when files from *LAN Installation Disk 1* are required. If the files in the NT folder are still not found, enter the path to the floppy drive (for example, a:\) and click *Continue*.

14 **In the 3Com Megahertz LAN PC Card dialog box, enter the Network settings for the PC card and click *Continue*.**

Select the settings appropriate for your card. In most cases the default settings will work, but if you are unsure about what settings to use ask your system administrator or MIS department.

15 **If you selected TCP/IP and have a DHCP server, click *Yes*.**

16 **If you do not have a DHCP server, click *No* and get an IP address from your system administrator and enter it.**

Windows NT files are copied to the hard drive.

17 **If you are prompted for TCP/IP information, enter it and click *OK*.**

The Network Setup Wizard shows a Bindings list.

18 **Click *Next* to continue.**

19 **Click *Next* to allow Windows NT to start the network.**

The Domain/Workgroup Settings window appears.

20 **Select the appropriate domain or workgroup name for Windows Networking and click *Next*.**

21 **Click *Finish* to exit the Network Setup Wizard.**

22 **Remove *LAN Installation Disk 1* from the floppy drive and click *Yes* to restart the PC.**

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Windows NT 4.0 Installation with Networking Installed

1. **Install the PC Card and connect it to the network as described in Chapter 1.**
2. **Using the Control Panel, double-click *Network*. Select the Adapters tab and click *Add*.**
3. **Click *Have Disk*.**
4. **Enter the path a:\, insert *LAN Installation Disk 1* in the floppy drive, and click *OK*.**
5. **When the SELECT OEM OPTION window opens, select *3Com Megahertz LAN PC Card (Ethernet)*, and click *OK*.**
6. **Enter the Network settings for the PC Card.**

   Select the appropriate settings for the card. In most cases the default settings will work, but if you are unsure about what settings to use ask your system administrator or MIS department.
7. **Click *OK*.**

   On some systems, a setup message may appear indicating that "the parameters are not verifiably correct - use them anyway?" If this happens, click *OK* to use the parameters.
8. **In the Network Protocols tab, make sure that each network protocol (service) that Windows NT uses appears in the window.**

   If not, click *Add* to install the correct protocols and services or consult your system administrator.
9. **In the Network Services tab, make sure each network service that Windows NT uses appears in the window.**

   If not, click *Add* to install the correct services or consult your system administrator.
10. **Click C*lose* to save and exit the Network setup area.**
11. **If you are prompted for TCP/IP information, enter it and click *OK*.**
12. **Remove *LAN Installation Disk 1* from the floppy drive and click *Yes* to restart the PC.**

    To confirm installation double-click the *Network* icon in the Control Panel. Click the *Adapters* tab. If the LAN PC Card does not appear on the list, see Chapter 3 for troubleshooting procedures.

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Windows NT Version 3.51

1. **Make sure the PC Card is installed and connected to the network as described in Chapter 1.**
2. **In the Main group double-click *Control Panel*.**
3. **On the *Control* panel, double-click the *Network* icon and click the *Add Adapter* tab.**
   - **a** If Windows NT networking is not installed, click *Yes* to install Windows NT networking.

     The Windows NT Setup window appears.
   - **b** Enter the directory name where the Windows NT installation files are located.
   - **c** Click *Do Not Detect*.

     Windows NT does not fully support Plug and Play and cannot detect the LAN PC Card.
   - **d** Click *Continue.*

     The Add Network Adapter window appears.
4. **Select *Other Requires disk from manufacturer* from the list.**
5. **Click *Continue*.**
6. **Insert *LAN Installation Disk 1* into the floppy drive. Enter the name of the drive (for example, A:\) and click *OK*.**
7. **Select *3Com Megahertz LAN PC Card* from the list and click *OK*.**

   The LAN PC Card files are copied to your PC.
8. **Click *OK* to accept the default settings for the LAN PC Card or enter new settings.**
9. **If networking is already installed, enter the IP Address if prompted, and reboot the PC to activate the network.**
10. **If networking is not installed, select the transport protocol (NWLink IPX/SPX compatible transport, TCP/IP protocol, NetBEUI protocol) in the Windows NT Setup Window.**
    - **a** Click *OK*.
    - **b** If prompted, enter the directory name where the NT installation files are located.

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c Click *No*.

d Click *OK*.

e Click *Close*.

f If prompted, enter the domain or workgroup name for Windows Networking and click *OK*.

g Remove *LAN Installation Disk 1* and restart your PC.

Microsoft Windows for Workgroups (WFW)

LAN Installation Disk 1 contains a subdirectory structure and files that make it an OEM import disk.

WFW v3.11 does not include internal support for the Plug and Play standard. Because NDIS 3 (32-bit) drivers operate only in Plug and Play environments, you cannot operate the LAN PC Card with the included 32-bit driver.

To ensure support for WFW v3.11, 3Com includes a 16-bit NDIS 2.0 driver. This driver offers full support for WFW, but may affect PC performance. To resolve this deficiency with WFW 3.11, you may want to upgrade your operating system.

Before You Begin

Before you begin installing the network driver, obtain *LAN Installation Disk 2* and Windows for Workgroups v3.11 installation files (on hard disk, floppy diskettes, or CD). Ask your MIS department for the following information:

- Transport protocol used in the Microsoft Windows Network (typically NetBEUI)
- Name of the NT Server domain or Windows 95/WFW 3.11 workgroup to which you belong

If you have Card and Socket Services installed on your notebook, the latest versions of the Card and Socket Services must be installed on your notebook. Check with your PC manufacturer if you are not sure.

If you installed any other network PC Card or network driver in the notebook, consult your MIS department for further instructions.

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Installing the Network Driver

1. **Using the *Windows* menu, select *Network*.**
2. **Select *Network Setup*.**
3. **In the Network Setup dialog box, select the *Networks...* button.**
4. **Select *Install Microsoft Windows Network* and then click *OK*.**
5. **Select the *Drivers...* button.**
6. **In the Network Drivers dialog box, click *Add Adapter*.**

   A dialog box appears, listing the supported network adapters on the diskette.
7. **From the list of network adapters, select *Unlisted Or Updated Network Adapter* and click *OK*.**

   A dialog box appears, prompting you to specify the drive or directory where the ELPC3.DOS driver can be found.
8. **Insert *LAN Installation Disk 2* in the floppy drive.**
9. **Click *OK* to accept the default directory.**
10. **Select *3Com Megahertz LAN PC Card* and click *OK*.**
11. **In the Network Drivers dialog box click *Close*.**
12. **In the Network Setup dialog box click *OK*.**
13. **If prompted, supply the information you gathered before you began the installation. After you enter the information, click *OK*.**

    If you are prompted for a disk with updated or vendor provided ELPC3.DOS, insert *LAN Installation Disk 2* and click OK to accept the default directory.

    A message appears, prompting you to restart your PC.
14. **Click *Continue* instead.**

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AutoLink for Windows 3.x, Windows for Workgroups, and DOS

If no other PC Cards are installed, you can use 3Com's AutoLink™ software program to automatically install the NetWare ODI client software (including the driver), and to modify the CONFIG.SYS and AUTOEXEC.BAT files.

To use the AutoLink program, the PC must meet these requirements:

- Use Novell NetWare 3.12, 4.10, or 4.11 network operating system
- Have *only one* LAN PC Card installed
- NetWare DOS ODI client

1. **Make sure the LAN PC Card is installed and connected to the network, as described in Chapter 1.**
2. **Boot the PC under DOS.**
3. **Insert *LAN Installation Disk 2* into the floppy drive and type `a:install [Enter]` at the DOS prompt**
4. **Choose Auto Install and Config for NetWare (AutoLink).**

   An information box appears.

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5 **Press Enter.**

An Operating System selection screen appears.

6 **Select AutoLink for DOS, Windows 3.x, or WFW 3.11.**

Several messages appear while the AutoLink program is running. A final message indicates successful installation.

If problems occur only *when the AutoLink program runs, view or print the AUTOLINK.LOG file (located in the C:\ directory) to see problems listed in the file.*

- To display the file, type:

  `type autolink.log | more [Enter]`

- To print the file, type:

  `print autolink.log [Enter]`

7 **When prompted, remove *LAN Installation Disk 2* and reboot the PC.**

When prompted, type your user name and password.

Installing the Windows CE 2.0 Driver

The following Windows CE hand-held PCs support the LAN PC Card using the United States Windows CE 2.0 driver:

- Cassiopeia Model # A11 & A20 (SH3 CPU)
- LG Phenom (SH3 CPU)
- Sharp Mobilon Model # HC4100 (MIPS CPU)
- Phillips Velo Model # 500 (MIPS CPU)
- Compaq C-Series (MIPS CPU)
- NEC MobilePRO 750C (MIPS CPU)

To install the driver, see the WINCE.TXT file on *LAN Installation Disk 1* in the WIN_CE directory.

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Supported Network Drivers

The files in Table 1 are located in the HELP directory on *LAN Installation Disk 2*.

Table 1 Network Driver Text File Names

Network Operating System	Text File Name	Network Driver Name
Windows 98	WIN9X.TXT	EL589ND5.SYS
Windows 95	WIN9X.TXT	EL589ND3.SYS/EL589ND4.SYS
Windows NT (v 4.0/3.51)	WINNT.TXT	EL589ND3.SYS/EL589ND4.SYS
Windows for Workgroups (NetWare)	WFWNETWR.TXT	3C589.COM
Windows for Workgroups (NDIS 2 driver)	WFWNDIS.TXT	ELPC3.DOS
NetWare and Windows 3.11	NWDOSODI.TXT	3C589.COM
NetWare and OS/2	NWOS2ODI.TXT	3C589.SYS
NetWare and DOS, Windows 3.11, and Windows for Workgroups	AUTOLINK.TXT- this file is in the AUTOLINK directory	3C589.COM
Banyan VINES	BANYAN.TXT	ELPC3.DOS
Microsoft LAN Manager	LANMAN.TXT	ELPC3.DOS
IBM LAN Server (DOS and OS/2)	LANSRV.TXT	ELPC3.DOS/ELPC3.OS2
Artisoft LANtastic	LANTASTK.TXT	ELPC3.DOS
DEC PATHWORKS	PATHWORK.TXT	ELPC3.DOS
Windows CE 2.0	WINCE.TXT is in WIN_CE directory on *LAN Installation Disk 1*	3C589.dll (SH3 processor) 3C589m.dll (Mips)

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3 TROUBLESHOOTING

This chapter provides the following troubleshooting information:

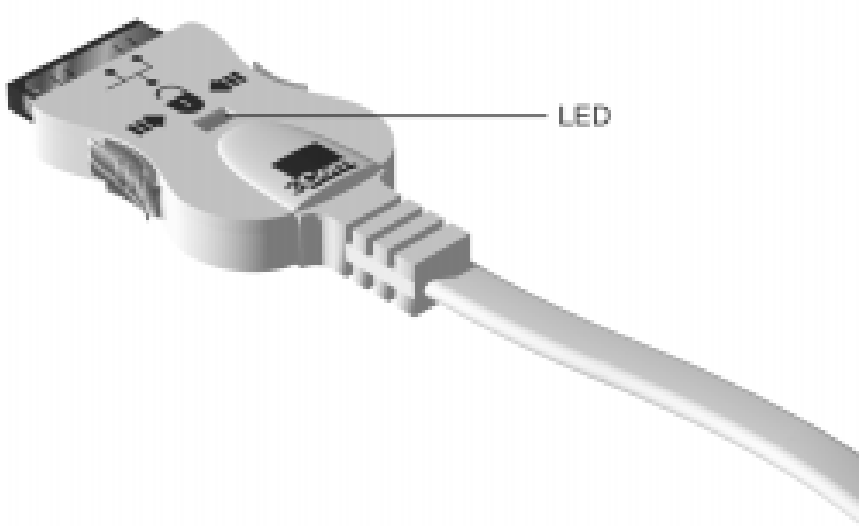
- Checking LEDs
- Accessing the 3Com LAN PC Card help system
- DOS Diagnostics program
- Resolving hardware resource conflicts
- Frequently Asked Questions
- Troubleshooting tips

The 3Com World Wide Web site (http://www.3com.com/) offers the latest drivers, troubleshooting information, and software updates in the Support area.

LEDs

For the 3CCE589ET and 3CCE589EC LAN PC Cards, the LED is on the connector (Figure 6) on both the network cable and the PC Card COMBO cable.

Figure 6 Network Cable and PC Card COMBO Cable LEDs



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To use the LED for troubleshooting, the LAN PC Card must be connected to the network (see Chapter 1) and the network drivers must be installed (see Chapter 2).

For the 3CXE589ET and 3CXE589EC LAN PC Cards, the LED is on the PC Card itself.

Figure 7 XJACK LAN PC Card LED

Table 2 LED Description

LED	Description	Steady	Off
10 Mbps	Green: Link integrity	Driver installed and good 10BASE-T connection between PC Card and hub	No connection between PC Card and hub

For Windows CE, the link light will be off to conserve power.

Accessing the LAN PC Card Help System

The LAN PC Card help system is a Windows Help application that was installed with your Windows network drivers.

The help system includes PC Card release notes, frequently asked questions, and the PC Card KnowledgeBase.

1. **Install the LAN PC Card and connect it to the network as described in Chapter 1.**
2. **Install the network driver as described in Chapter 2.**
3. **Double-click the TCAUM589.hlp Winhelp book icon located in the C:Windows, C:\WINNT directory, or your default Windows directory.**

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You can also copy the TCAUM589 file from *LAN Installation Disk 1* to your notebook.

The 3Com PC Card Release Notes Screen appears that displays tips about installing and using the LAN PC Card.

- Click >> button at the top of the Release Notes screen to display the *Frequently Asked Questions* screen that displays answers from 3Com support experts to common customer questions.
- Click >> button at the top of the Frequently Asked Questions screen to display the *KnowledgeBase* that displays LAN PC Card compatibility topics and workarounds.

DOS Diagnostics Program

To run the DOS diagnostics tests see the INSTRUCT.TXT file in the HELP directory on *LAN Installation Disk 2*.

Resolving Hardware Resource Conflicts

Windows 98 and Windows 95

Use this procedure to resolve hardware resource conflicts (I/O Base Address and Interrupt values) using Windows 98 or Windows 95.

1. **Using the Start Menu select *Help*.**
2. **In the Help window select the *Contents* tab.**
3. **Select *Troubleshooting*.**
4. **Double-click *"If you have a hardware conflict"***
5. **Click *Start the Conflict Troubleshooter* and follow the instructions.**

Changing the I/O, IRQ, or Memory Range

If you discover resource conflicts, you can change the I/O base address, interrupt value (IRQ), or memory range using Windows 98 or Windows 95. Resource conflicts may be due to having an old BIOS installed on your notebook.

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Consult your system administrator before you change these values.

1. **Double-click the *System* icon in the Control Panel.**
2. **In the System Properties window, click Device Manager, and then double-click *Network Adapters*.**
3. **Double-click *3Com Megahertz LAN PC Card*.**
4. **Select the *Resources* tab.**
5. **Uncheck the Use Automatic Settings box.**
6. **Click *Change Settings*.**
7. **Change the value and click *OK*.**
8. **Restart the notebook to change the values.**

   The values are changed.

Windows NT 4.0

Use this procedure to resolve hardware resource conflicts (I/O Base Address and Interrupt values) using Windows NT.

1. **From the Control Panel double-click *Network*.**
2. **Click the *Adapter tab*.**
3. **Select *3Com Megahertz LAN PC Card* and click *Properties*.**
4. **Change the I/O or IRQ value and click *Confirm*.**

   The values are changed.

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Frequently Asked Questions

Table 3 Frequently Asked Questions

Question	Answer
Is the LAN PC Card FCC B, CISPR B EMI, C-tick EMI, and VCCI 2 EMI certified?	Yes, the LAN PC Card has passed these certification tests.
Which PC Card slot is best for my LAN PC Card?	The LAN PC Card is designed to work in any PC Card slot.
Does the LAN PC Card support full duplex?	Yes.
What should I do if the LAN PC Card installs as a "Generic PCI Ethernet Controller" under Other Devices in the Device Manager?	If the LAN PC Card installs as a generic PCI Ethernet controller, follow these steps: **1** In the Device Manager, double-click *Other Devices*. **2** Click the PCI Ethernet Controller. **3** Click *Remove*. **4** Restart your notebook.
What should I do if a yellow exclamation point appears next to the 3Com Megahertz LAN PC Card name?	**1** In the Device Manager double-click *Other Devices*. **2** Click the PCI Ethernet Controller or the duplicate 3Com Megahertz LAN PC Card entry. **3** Click *Remove*. **4** Restart your notebook.
What is Dynamic*Access*® software?	Dynamic*Access* software brings intelligence to the end systems to provide improved network performance and control. You can download the latest Dynamic*Access* software from the 3Com Web site: www.3com.com.
What is Fast IP?	Fast IP is software that improves performance on switched networks. Fast IP allows end systems (notebooks and servers) to discover switched communication paths. By creating switched short cuts, Fast IP allows end stations to bypass the router and transfer data across wire-speed switched paths. Fast IP is part of 3Com's Dynamic*Access* software.

(continued)

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Table 3 Frequently Asked Questions (continued)

Question	Answer
What are the notebook and network requirements to run Fast IP?	Client requirements: Notebook running Windows 98, Windows 95, Windows NT (versions 4.0 or 3.51), 3Com Megahertz LAN PC Card, and the TCP/IP stack. Network requirements: Switched path between stations and single broadcast domain.
What are the network configuration requirements for Fast IP?	Fast IP is designed to bypass the router, particularly where the router is a bottleneck, as well as to leverage the switched infrastructure. For Fast IP to create short cuts around routers, there must be a switched path between source and destination.
What is the performance gain when using Fast IP?	Fast IP bypasses the router to provide increased performance in switched networks even if there are just a small number of network nodes using Fast IP. The performance gain obtained when deploying Fast IP is directly related to traffic load on the backbone router. The more traffic is pumped to it, the bigger the latency and response time and the higher the performance gain. Internal tests show performance increases in the order of 600% when routers are loaded at 70 to 75%.

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Troubleshooting Tips

- Check the LAN PC Card installation in Chapter 1.
- Inspect all cables and connections.
- Make sure you have the latest BIOS for your notebook.
- Try the notebook at a known working location
- Try the LAN PC Card in a known working notebook
- If you think you have resource conflicts (I/O base address or interrupts) run the Windows 95 conflict troubleshooter as described earlier in this chapter.

If trouble persists contact your MIS department or network manager.

For additional troubleshooting information see the 3Com Web site at www.3com.com.

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4 CHANGING CONFIGURATION

This chapter describes how to display and change configuration settings for the LAN PC Card.

Before you change these settings, contact your MIS department.

Configuration Settings

Table 4-1 lists each configuration option, the default setting, and the available settings.

Table 4 Option Settings

Option	Default Setting	Available Settings
CIS Memory Address	Assigned by Card Services	256 KB
I/O Base Address	Assigned by Card Services	200h, 210h, 220h, 230h, 240h, 250h, 260h, 270h, 280h, 290h, 2A0h, 2B0h, 2C0h, 2D0h, 2E0h, 2F0h, 300h, 310h, 320h, 330h, 340h, 350h, 360h, 370h, 380h, 390h, 3A0h
Interrupt Request Level	Assigned by Card Services	3, 5, 7, 9, 10, 11, 12, 15
Transceiver Type	Auto-Select	Auto-Select, Coax (BNC), TP (RJ-45)
Network Driver Optimization	Windows or OS/2 client	DOS, Microsoft Windows and OS/2 client, server.
Full Duplex	Disabled	Enabled, disabled

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Configuration Setting Descriptions

CIS Memory Address

The CIS Memory requires a 256 KB segment of memory for drivers.

I/O Base Address

The I/O address space is used by the LAN PC Card for communication between the LAN PC Card and the notebook. The LAN PC Card uses 16 bytes of I/O space, starting at the I/O Base Address.

Make sure that no other device is using the same value (the default is 300h). The range is from 200h to 3A0h. For more information about resolving resource conflicts, see Chapter 3.

Interrupt Request Level

The IRQ is used by the LAN PC Card for communication between the LAN PC Card and the notebook. The LAN PC Card can operate on one of eight interrupt levels: 3, 5, 7, 9, 10, 11, 12, or 15.

The preferred interrupt level is 10, but the LAN PC Card can operate on the other interrupt levels if necessary. If a conflict continues you might have to change the setting of other adapters or options that are in the notebook. For Toshiba notebooks set the interrupt to 11. For more information about resolving conflicts see Chapter 3.

Transceiver Type

The Transceiver Type can be Auto-Select, Coax (BNC), or TP (RJ-45). The default is Auto-Select. If the PC Card cannot automatically detect what type of cable is connected to the network, it will assign TP (RJ-45).

Network Driver Optimization

Network driver optimization can be selected for a DOS client, Windows and OS/2 client, server. Changing this option to match the OS in your notebook may improve performance.

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Full Duplex

Full duplex allows the LAN PC Card to send and receive data between the LAN PC Card and the switch connection at the same time.

Changing Configuration

You can change the I/O base address, interrupt request (IRQ), memory range, transceiver type, NDIS driver version, and network optimization using Windows 98, Windows 95, and Windows NT.

Windows 98 and Windows 95

Changing I/O Base Address, Interrupt Request Level (IRQ), or Memory Range

You should only change these settings if you have a resource conflict.

1. **Install the LAN PC Card and connect it to the network (Chapter 1) and install the driver (Chapter 2).**
2. **Double-click the *My Computer* icon.**
3. **Double-click the *Control Panel* icon.**
4. **Double-click the *System* icon in the Control Panel.**
5. **In the System Properties window, click *Device Manager*.**
6. **Double-click *Network Adapters*.**
7. **Double-click *3Com Megahertz LAN PC Card*.**
8. **Select the *Resources* tab.**
9. **Select *Input/Output Range or Interrupt Request*.**
10. **Uncheck *Automatic Settings*.**
11. **Click *Change Settings*.**
12. **Change the value and click *OK*.**
13. **Restart the notebook to change the values.**

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Changing Network Driver Optimization, Duplex, NDIS Driver Version, or Transceiver Type

1. **Install the LAN PC Card and connect it to the network (Chapter 1) and install the driver (Chapter 2).**
2. **Double-click the *Control Panel* icon.**
3. **Double-click the *Network* icon.**
4. **Select the 3Com Megahertz LAN PC Card.**
5. **Click *Properties*.**
6. **Click *Advanced*.**
   - For network driver optimization, click DOS Client or Windows or OS/2 client or server.
   - For full duplex, click enable to use full duplex and disable if you do not want to use full duplex. Only use full duplex if you have a full duplex network.
   - For NDIS driver version, click auto-select, NDIS 3, NDIS 4, or NDIS 5. NDIS 5 only works with Windows 98. If you select NDIS 5 for Windows 95 OSR2, NDIS 4 will be used. If you select NDIS 5 for Windows 95 version A, NDIS 3 will be used.
   - For transceiver type, click TP (RJ-45), Coax (BNC), or Auto-Select.
7. **Close the windows and reboot the notebook.**

   The values are changed.

Windows NT 4.0

Use this procedure to change the I/O Base Address and Interrupt values using Windows NT.

1. **From the Control Panel double-click *Network*.**
2. **Click the *Adapters tab*.**
3. **Select *3Com Megahertz LAN PC Card* (Ethernet) and click *Properties*.**
4. **Change the I/O or IRQ value and click *OK*.**

DOS Configuration Program

To change the configuration on a DOS notebook, see the INSTRUCT.TXT file in the HELP directory on *LAN Installation Disk 2*.

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5 DYNAMIC*ACCESS*

Dynamic*Access* software adds intelligence to 3Com PC Cards for improved performance, management, and control of your network. Dynamic*Access* software 1.5 is an advanced network driver that integrates dRMON, Fast IP, Traffic Prioritization, and Efficient Multicast Control support.

- Traffic Prioritization provides a standards-based solution, preventing delays in transmissions of mission-critical or real-time traffic and extends this capability to the WAN.
- Fast IP alleviates router bottlenecks in today's any-to-any networks and intranets, where a growing percentage of traffic travels between rather than within subnets.
- Efficient Multicast Control prevents flooding of switched networks by multicast applications such as video training, stock quotes, or online news.

For complete information on how to use Dynamic*Access* software, see the Dynamic*Access* software documentation on the Dynamic*Access* Disk.

Be sure to visit the 3Com Web site for additional postings of FAQs for the Edge Monitor System and new Dynamic*Access* software versions and information at:

`http://support.3com.com/nav/trans_net_man.htm`
`http://www.3com.com/dynamicaccess`
`http://support.3com.com/nav/dynamic_access.html`

Dynamic*Access* software offers easy centralized installation through login scripts or other popular software distribution platforms. These installation methods eliminate the need to touch each end node PC to install the client software to get the advantages of dRMON and the Edge Monitor.

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Using Dynamic*Access* Software Version 1.5 with the Edge Monitor System

The Edge Monitor System operates as described in the *Transcend dRMON Edge Monitor System User Guide.* Follow the instructions in the *Release Notes* and the user guide.

The new software for the end nodes should be installed according to the instructions included in the file on the disk. The following issues, in addition to the installation instructions, must be observed for a successful installation:

- If you have already installed the Dynamic*Access* software version 1.5 on your end nodes and now plan to install the Transcend dRMON Edge Monitor System, do not install the dRMON SmartAgent software from the CD on to your end nodes. You only need to ensure that the password you set for the end nodes with KEYSET.EXE matches the password you use for your Edge Monitor.
- Do not install the Dynamic*Access* software version 1.5 on the PC where you install the Edge Monitor. The data reported by the Edge Monitor will be inaccurate because it will track its own traffic statistics twice.
- If you install Dynamic*Access* software on a PC running Windows NT Server, the dRMON software that collects statistics is inactive. To activate the dRMON collection, change the value of the following registry REG_DWORD from 0 to 1 with Regedit:

  ```
  HKEY_LOCAL_MACHINE\System\
  CurrentControlSet\Services\
  DAPassThru<n>\Parameters\
  ```

  This is the same behavior as the dRMON SmartAgent software behavior, but the registry key is different.

- You cannot use the Auto-Update utility with the new client Dynamic*Access* software. A replacement utility will be available at the next release of the Edge Monitor.
- Do not install the dRMON SmartAgent software that ships on the CD on a PC that has the Dynamic*Access* software installed.

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Setting a dRMON Password

To promote secure monitoring with dRMON, you can set a password for the dRMON Dynamic*Access* software.

If you do not choose to set a password, the end node PCs will have the default password for the Edge Monitor. Use this same password for the Dynamic*Access* software.

To set the password for secure monitoring:

1. **Run the KEYGEN.EXE file.**

   The KEYGEN.EXE file encodes the password into the KEYSET.EXE file.

2. **Enter your password in the dialog box.**

3. **Record your dRMON Edge Monitor System password in a safe place.**

4. **Click *OK*.**

   Be sure to insert the KEYSET.EXE file in the login script and run it before you run the DA15CFG.EXE file. Upon completion, the KEYSET.EXE file asks you to reboot.

5. **Reboot the notebook.**

   If you enter the password, you can correct it and run the KEYSET.EXE file again from the login script if the end nodes have not been discovered by an Edge Monitor. If the end nodes have been adopted by an Edge Monitor, you can pause the Edge Monitor while you run the KEYSET.EXE file again from a login script to set the correct password.

   Be sure to visit the 3Com Web site for additional postings of FAQs for the Edge Monitor System and new Dynamic*Access* software versions and information at:

   `http://support.3com.com/nav/trans_net_man.htm`
   `http://www.3com.com/dynamicaccess`
   `http://support.3com.com/nav/dynamic_access.htm`

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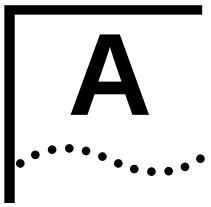

SPECIFICATIONS

Table 5 PC Cards Specifications

Network Interface	
10 Mbps Ethernet 10BASE-T	Ethernet IEEE 802.3 industry standard for a 10 Mbps baseband CSMA/CD local area network
Physical Dimensions	
Length	3.370 in (85.6 mm)
Width	2.126 in (54 mm)
Height	Type II, 0.197 in (5.0 mm)
Weight	0.86 oz. (24.4 g)
Environmental Operating Range	
Operating temperature	(0˚ to 70˚C) 32˚ to 131˚F
Relative humidity	5% to 90% noncondensing
Card Information Structure (CIS) and Memory Size	
Drivers	4 KB
Diagnostics	8 KB
CIS	256 K
FIFO	8 KB

Network Cable Specifications

UTP Cable Requirements:

Category 3 LAN and high-speed data cable (10 Mbps) that meets the requirements of EIA/TIA-568 and EIA/TIA TSB-36

Category 4 extended distance LAN cable that meets the requirements of EIA/TIA-568 and EIA/TIA TSB-36

Category 5 voice and data transmission LAN cable (100 Mbps) that meets the requirements of EIA/TIA-568 and EIA/TIA TSB-36

Power Requirements	
Operating voltage	Coax 5 V ± .25V @ 300 mA TP 5 V ± .25V @ 26 mA TP in Windows CE Devices 5 V ± .25V @ 20 mA

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Mean Time Between Failures (hours calculated)

70 ˚C (158 ˚F) mobile environment	128, 694.33 hours
25 ˚C (77 ˚F) mobile environment	342, 367.70 hours
FCC Certification	Part 15, Class B

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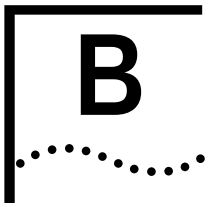

TECHNICAL SUPPORT

3Com provides easy access to technical support information through a variety of services. This appendix describes these services.

Information contained in this appendix is correct at time of publication. For the very latest, 3Com recommends that you access the 3Com Corporation World Wide Web site.

Online Technical Services

3Com offers worldwide product support 24 hours a day, 7 days a week, through the following online systems:

- World Wide Web site
- 3Com FTP site
- 3Com Bulletin Board Service (3Com BBS)
- 3ComFacts℠ automated fax service

World Wide Web Site

Access the latest networking information on the 3Com Corporation World Wide Web site by entering the URL into your Internet browser:

http://www.3com.com/

This service provides access to online support information such as technical documentation and software library, as well as support options ranging from technical education to maintenance and professional services.

3Com FTP Site

Download drivers, patches, and software across the Internet from the 3Com public FTP site. This service is available 24 hours a day, 7 days a week.

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To connect to the 3Com FTP site, enter the following information into your FTP client:

- Hostname: **ftp.3com.com** (or **192.156.136.12**)
- Username: **anonymous**
- Password: **<your Internet e-mail address>**

A user name and password are not needed with Web browser software such as Netscape Navigator and Internet Explorer.

3Com Bulletin Board Service

The 3Com BBS contains patches, software, and drivers for 3Com products. This service is available through analog modem or digital modem (ISDN) 24 hours a day, 7 days a week.

Access by Analog Modem

To reach the service by modem, set your modem to 8 data bits, no parity, and 1 stop bit. Call the telephone number nearest you:

Country	Data Rate	Telephone Number
Australia	Up to 14,400 bps	61 2 9955 2073
Brazil	Up to 14,400 bps	55 11 5181 9666
France	Up to 14,400 bps	33 1 6986 6954
Germany	Up to 28,800 bps	4989 62732 188
Hong Kong	Up to 14,400 bps	852 2537 5601
Italy	Up to 14,400 bps	39 2 27300680
Japan	Up to 14,400 bps	81 3 3345 7266
Mexico	Up to 28,800 bps	52 5 520 7835
P.R. of China	Up to 14,400 bps	86 10 684 92351
Taiwan, R.O.C.	Up to 14,400 bps	886 2 377 5840
U.K.	Up to 28,800 bps	44 1442 438278
U.S.	Up to 56,000 bps	1 847 262 6000

Access by Digital Modem

ISDN users can dial in to the 3Com BBS using a digital modem for fast access up to 56 Kbps. To access the 3Com BBS using ISDN, use the following number:

1 408 654 2703

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3ComFacts Automated Fax Service

The 3ComFacts automated fax service provides technical articles, diagrams, and troubleshooting instructions on 3Com products 24 hours a day, 7 days a week.

Call 3ComFacts using your Touch-Tone telephone:

1 408 727 7021

Support from Your Network Supplier

If additional assistance is required, contact your network supplier. Many suppliers are authorized 3Com service partners who are qualified to provide a variety of services, including network planning, installation, hardware maintenance, application training, and support services.

U.S. and Canada

Call the following number to locate your local 3Com sales office:

U.S. 1 800 NET-3Com

The 3Com sales office will refer you to the nearest 3Com authorized service partner. If you are unable to contact your network supplier, see the following section on how to contact 3Com.

Support from 3Com

If you are unable to obtain assistance from the 3Com online technical resources or from your network supplier, 3Com offers technical telephone support services. To find out more about your support options, please call the 3Com technical telephone support phone number at the location nearest you.

When you contact 3Com for assistance, have the following information ready:

- Product model name, part number, and serial number
- A list of system hardware and software, including revision levels
- Diagnostic error messages
- Details about recent configuration changes, if applicable

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Below is a list of worldwide technical telephone support numbers:

Country	Telephone Number
Asia Pacific Rim	
Australia	1 800 678 515
China	
From anywhere in China:	86 21 6350 1590
From Shanghai:	10 800 3656
Hong Kong	001 800 61 009
India	0031 61 6439
Indonesia	1800 801 777
Japan	0800 446 398
Malaysia	61 2 9937 5085
New Zealand	1235 61 266 2602
Pakistan	10800 61 00137 or 021 6350 1590
Philippines	800 6161 463
P.R. of China	
Singapore	82 2 3455 6455
S. Korea	00798 611 2230
From anywhere in S. Korea:	0080 611 261
From Seoul:	001 800 611 2000
Taiwan, R.O.C.	
Thailand	
Europe	
From anywhere in Europe, call:	+31 (0)30 6029900 phone +31 (0)30 6029999 fax
From the following European countries, you may use the toll-free numbers:	
Austria	06 607468
Belgium	0800 71429
Denmark	800 17309
Finland	0800 113153
France	0800 917959
Germany	0130 821502
Hungary	00800 12813
Ireland	1 800 553117
Israel	177 3103794
Italy	1678 79489
Netherlands	0800 0227788
Norway	800 11376
Poland	0800 3111206
Portugal	05 05313416
South Africa	0800 995014
Spain	900 983125
Sweden	020 795482
Switzerland	0800 55 3072
U.K.	0800 966197

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Country	Telephone Number
Latin America	
Argentina	541 312 3266
Brazil	55 11 523 2725, ext. 422
Colombia	571 629 4847
Mexico	01 800 849 2273
North America	1 800 NET 3Com (1 800 638 3266)

Returning Products for Repair

Before you send a product directly to 3Com for repair, you must first obtain a Return Materials Authorization (RMA) number. Products sent to 3Com without RMA numbers will be returned to the sender unopened, at the sender's expense.

To obtain an RMA number, call or fax:

Country	Telephone Number	Fax Number
Asia, Pacific Rim	65 543 6500	65 543 6348
Europe, South Africa, and Middle East	44 1442 435860	44 1442 435718
From the following European countries, you may call the toll-free numbers; select option 2 and then option 2:		
Austria	06 607468	
Belgium	0800 71429	
Denmark	800 17309	
Finland	0800 113153	
France	0800 917959	
Germany	0130 821502	
Hungary	00800 12813	
Ireland	1800553117	
Israel	177 3103794	
Italy	1678 79489	
Netherlands	0800 0227788	
Norway	800 11376	
Poland	00800 3111206	
Portugal	05 05313416	
South Africa	0800 995014	
Spain	900 983125	
Sweden	020 795482	
Switzerland	0800 55 3072	
U.K.	0800 966197	

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Country	Telephone Number	Fax Number
Latin America	1 408 326 2927	1 408 326 6883
U.S. and Canada	1 800 876 3266, option 2	1 408 326 7120
Note: RMA forms (except Europe) are available on CardFacts. Dail 408 727-7021.		
All other locations	408 492-1790	408 326-7120

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3Com Corporation LIMITED WARRANTY

HARDWARE

3Com warrants its hardware products to be free from defects in workmanship and materials, under normal use and service, for the following lengths of time from the date of purchase from 3Com or its Authorized Reseller:

Network interface cards	Lifetime
Other hardware products (unless otherwise specified in the warranty statement above)	1 year
Spare parts and spares kits	90 days
Notebook PC Compatability	1 year from date of purchase

If a product does not operate as warranted above during the applicable warranty period, 3Com shall, at its option and expense, repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of 3Com. Replacement products may be new or reconditioned. Any replaced or repaired product or part has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

3Com shall not be responsible for any software, firmware, information, or memory data of Customer contained in, stored on, or integrated with any products returned to 3Com for repair, whether under warranty or not.

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3Com warrants that the software programs licensed from it will perform in substantial conformance to the program specifications therefor for a period of ninety (90) days from the date of purchase from 3Com or its Authorized Reseller. 3Com warrants the media containing software against failure during the warranty period. No updates are provided. The sole obligation of 3Com with respect to this express warranty shall be (at the discretion of 3Com) to refund the purchase price paid by Customer for any defective software products, or to replace any defective media with software which substantially conforms to applicable 3Com published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. 3Com makes no warranty or representation that its software products will work in combination with any hardware or applications software products provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third-party products listed in the 3Com software product documentation or specifications as being compatible, 3Com will make reasonable efforts to provide compatibility, except where the noncompatibility is caused by a "bug" or defect in the third party's product.

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Standard warranty service for hardware products may be obtained by delivering the defective product, accompanied by a copy of the dated proof of purchase, to the 3Com Corporate Service Center or to an Authorized 3Com Service Center during the applicable warranty period. Standard warranty service for software products may be obtained by telephoning the 3Com Corporate Service Center or an Authorized 3Com Service Center, within the warranty period. Products returned to the 3Com Corporate Service Center must be preauthorized by 3Com with a Return Material Authorization (RMA) number marked on the outside of the package, and sent prepaid, insured, and packaged appropriately for safe shipment. The repaired or replaced item will be shipped to Customer, at the expense of 3Com, not later than thirty (30) days after receipt of the defective product by 3Com.

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IF A 3COM PRODUCT DOES NOT OPERATE AS WARRANTED ABOVE, CUSTOMER'S SOLE REMEDY FOR BREACH OF THAT WARRANTY SHALL BE REPAIR, REPLACEMENT, OR REFUND OF THE PURCHASE PRICE PAID, AT THE OPTION OF 3COM. TO THE FULL EXTENT ALLOWED BY LAW, THE FOREGOING WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ALL OTHER WARRANTIES, TERMS, OR CONDITIONS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, STATUTORY OR OTHERWISE, INCLUDING WARRANTIES, TERMS, OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND SATISFACTORY QUALITY. 3COM NEITHER ASSUMES NOR AUTHORIZES

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3Com Corporation, 5400 Bayfront Plaza, P.O. Box 58145, Santa Clara, CA 95052-8145.
(408) 326-5000

FCC CLASS B STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

WARNING: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from the one which the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.

The user may find the following booklet prepared by the Federal Communications Commission helpful:

The Interference Handbook

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 004-000-00345-4.

Tested to comply with the FCC Standards for home and office use.

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NOTE: In order to maintain compliance with the limits of a Class B digital device, 3Com requires that you use quality interface cables when connecting to this device. Changes or modifications not expressly approved by 3Com could void the user's authority to operate this equipment. Refer to the manual for specifications on cabling types.

FCC Declaration of Conformity

We declare under our sole responsibility that the

Model:	**Description:**
3CCE589ET, 3CCE589EC, 3CXE589ET, 3CXE589EC	3Com Megahertz 10 Mbps LAN PC Card

to which this declaration relates, is in conformity with the following standards or other normative documents:

- ANSI C63.4-1992 Methods of Measurement
- Federal Communications Commission 47 CFR Part 15, subpart B
  15.107 (e) Class B Conducted Limits
  15.109 (g) Class B Radiated Emissions Limits

3Com Corporation, 5400 Bayfront Plaza, P.O. Box 58145, Santa Clara, CA 95052-8145.
(408) 326-5000

Industry Canada Class B Emmission Compliance Statement

This Class B digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada

Cet appareil numérique de la classe B est conform à la norme NMB-003 du Canada.

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